

All You Need to Know: A Thesis and Seminar Paper Guide

Created for Bachelor and Master students of Faculty 2 and students of Faculty 9 with Economics
& Business Focus

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1. Formal requirements

When preparing scientific papers, such as seminar papers and/or theses, various formalities should be considered, which are described below. We do not claim that the information provided herein is exhaustive, meaning that you are deliberately given room for your own discretion in the preparation of your scientific work. However, care should be taken to ensure that the adopted approach is consistent, hence, it does not conflict with the described principles, applied uniformly and meets scientific requirements.

1.1. Formatting guidelines

All scientific papers should meet the following requirements the following standard: Page margin should be set to 3 cm left, 4 cm right with the Times New Roman (12 pt.), justified and with 1.5 line spacing.

1.1.1. Page numbering

Except for the cover sheet, all sheets shall be numbered. The details preceding the main text (table of contents, table of symbols and figures) are to be numbered with Roman page numbers and the remaining pages with Arabic numerals (e.g., Page 1: Introduction).

1.1.2. Citation format

In principle, every quotation must be verifiable with the help of the list of references. Quotations used but not explicitly marked can lead to a negative evaluation of the work, up to grading with “not sufficient”, if it is demonstrably plagiarism.¹ Direct quotations begin and end with quotation marks. For indirect quotations (i.e. when the thoughts of an author are described analogously), no quotation marks are used. References to publications are made within the current text. The respective page number should be added to each quotation (direct or indirect).²

1.2. Structure and content of first pages

The pages in front of the introduction should summarize all information on the author and provide an overview of the structure and illustrations of the paper.

1.2.1. Cover page

The cover page of seminar papers and theses must contain the following information: title, course,

¹ Papers will be checked at random using a digital application to see whether there are any plagiarized materials used in the seminar papers and/or thesis.

² See Subsection 1.3.1 for further details.

organizer and semester, faculty, supervisor, and information on the author (name, matriculation number, address, telephone, e-mail, subject of study and semester number) and the submission date.

1.2.2. Table of contents

The table of contents (with page numbers) is to be placed before the paper and should be separated from the cover page. It should be self-explanatory and reflect the argumentation structure of the paper. Try to find “speaking” headings. The structure is a central component of the work and is included in the grading. Pay attention to a logical outline structure: If outline point 2.1 exists, there must also be outline point 2.2. The explanations in 2.1 and 2.2 are then essential with regard to the statements of the entire chapter.

1.2.3. Table of symbols and figures

The table of symbols contains all symbols and variables used in the work with their respective definitions. Add this section only if applicable.

The Table of figures lists all figures with their numbers and headings.

1.3. Structure and content of final pages

The final pages after the conclusion must list all references and include the statutory clarification.

1.3.1. References

The list of references shows all the publications mentioned in the text in alphabetical order (including Internet sources), but none that have not been used. For Internet pages, please also indicate the date on which you used the page as a source. Laws used must be listed as such under a separate heading within the list of references.

As it is highly crucial that all points are referenced properly, please make sure to use proper citation standards. In your seminar paper or thesis, you can use APA³, MLA⁴ or Harvard reference style. Free software packages (e.g., Citavi, Zotero) could be used in organizing your references correctly. For clarity and completeness, you can find the following format in citing different sources according to the APA reference style.⁵

Citation for Print Books

³ See <https://www.bibme.org/apa> for a complete overview on how to implement APA reference style.

⁴ See <https://www.bibme.org/mla> for a complete overview on how to implement MLA reference style.

⁵ Note: although these are divided according to the type of sources, you should NOT differentiate between types in the list of references.

- Author's Last name, First name initial. Middle name initial. (Year published). *Title of the book*. Location of publisher: Publisher.
- Citation for edited books
 - Editor, F. M. (Ed.). (Year published). *Title of edited book*. Location: Publisher.
- Citations for Journal Articles Found Online
 - Author's Last name, F. M. (Year published). Title of the article. *Title of Journal, volume number*(issue number), page range. <http://dx.doi.org/10.xxxx/xxxxxx> OR Retrieved from URL
- Citations for a Newspaper Article in Print
 - Author's Last name, F. M. (Year, Month Day of Publication). Article title. *Newspaper Title*, pp. xx-xx.
- Citations for Websites
 - Author's Last name, F. M. (Year, Month Day published). Title of article or page. Retrieved from URL on Date.

1.3.2. Appendix

Information that is essential for understanding the text belongs in the text and not in the appendix. An appendix is particularly recommended when interviews have been conducted (attach original questionnaire and English translation if necessary) or when there are relevant texts (e.g., legal texts, political statements). Your text must be understandable without reading the literature in the appendix. There must be a reference in the text to each presentation that is in the appendix.

1.3.3. Statutory Declaration

One of the following affidavits must be included in the verbatim at the end of the seminar paper and thesis. Please attach the affidavit in the language in which the rest of the paper is written.

I herewith declare that I have composed the present thesis myself and without the use of any other than the cited sources and aids. Sentences or parts of sentences quoted literally are marked as such; other references with regard to the statement and scope are indicated by full details of the publications concerned. The thesis in the same or similar form has not been submitted to any examination body and has not been published. This thesis was not yet, even in part, used in another examination or as a course performance. Furthermore, I declare that the submitted written (bound) copies of the present thesis and the version submitted on a data carrier are consistent with each other in contents.

Indication of place, date, and signature.

Ich versichere hiermit, dass ich die vorliegende Arbeit selbständig und ohne Benutzung anderer als der angegebenen Quellen und Hilfsmittel verfasst habe. Wörtlich übernommene Sätze oder Satzteile sind als Zitat belegt, andere Anlehnungen, hinsichtlich Aussage und Umfang, unter Quellenangabe kenntlich gemacht. Die Arbeit hat in gleicher oder ähnlicher Form noch keiner Prüfungsbehörde vorgelegen und ist nicht veröffentlicht. Sie wurde nicht, auch nicht auszugsweise, für eine andere Prüfungs- oder Studienleistung verwendet. Zudem versichere ich, dass die von mir abgegebenen schriftlichen (gebundenen) Versionen der vorliegenden Arbeit mit der abgegebenen elektronischen Version auf einem Datenträger inhaltlich übereinstimmen.

Angabe von Ort, Datum und Unterschrift.

1.4. Length of the paper

All seminar papers should be 15 ± 5 pages long. For the bachelor thesis, FB 02 students should be about 25 ± 5 pages while for Japanese students the thesis should be $30 \pm 10\%$ long. The Master thesis should be 50 ± 5 pages long, regardless of the field of study. Diagrams and graphs can be put into the Appendix which is not included in the page limit.

1.5. Style and expression

You should attach importance to a stylistically appealing work. The principle here is clarity in structure and presentation. In writing your papers, either American English or British English could be used, but not both. Abbreviations should be used as little as possible in the running text. Common abbreviations such as "e.g.", "etc." may be used. Abbreviations for convenience such as "EMP" for "employees" are not permitted. If figures and tables are used, a title (usually above the figure or table) and the source (usually below) are required. Theses and seminar papers written in German should avoid anglicisms (e.g., "profits" in English are "Gewinne" in German, and not "Profite").

1.6. Reproduction of Japanese terms⁶

The transcription of Japanese terms follows the Hepburn transcription. If a vowel follows the syllable n within a word, an apostrophe is inserted before the vowel (e.g., hon'ya). Proper names are represented in the same way as the author/the corresponding person writes himself/herself (e.g., "Kenichi Ohmae" instead of "Kenichi Omae", just like "Schaede" and not "Schäde"). Stretched vowels are marked with an elongation line (e.g., "ō") or circumflex (e.g., "ô"). Within the text,

⁶ Only applicable to Japanese Studies with a focus on Economics & Business

Japanese and foreign-language terms are always written in small italics. If one uses the Japanese term and its German translation, then the Japanese term has to be written in brackets behind the German translation: “...The Family system (i.e. seido)...”

There are several exceptions to the use of small italics:

- Terms that have found their way into the German language (i.e. into the Duden) are written like German words (as given in the Duden) and therefore capitalized, not italicized (e.g., Samurai).
- Place and person names are spelled normally (upright, not in italics). The spelling of personal names usually follows the Japanese rule: surname before the first name.
- Company names as well as names of institutions, i.e. all “titles” in the broader sense, are also not written in italics, e.g., Sony, Japan Securities Research Institute, Nikkei 225 - Index, Keidanren. If the company has a non-Japanese name, it is preferable to use the German or English name; however, if the name is mentioned for the first time within the text, the Japanese name should be followed in brackets.
- Example: Matsushita Electric (Matsushita Denki Sangyô KK) has launched a new product.
- In case there are firmly established abbreviations, they can be used, but must first be decoded in brackets. Japanese Studies students must also insert them in Japanese.
- Example: METI (Ministry of Economy, Trade, and Industry, KeizaiSangyôshô) issued an additional import regulation in the same year.
- Laws must always be quoted in German and/or English translation. Japanese Studies students should add the italicized Japanese title of the law.
- Example: The revision of the “Foreign Exchange and Foreign Trade Control Act” (Gaikoku kawase oyobi gaikoku bôeki-hô, Foreign Exchange and Foreign Trade Control Law) from the year 1980 enabled the unlimited international flow of capital for the first time.

2. General content and structure

2.1. Preparation of the writing process

Before starting the actual writing process, you should ask yourself the following questions:

- *How does this paper change, challenge, or fundamentally advance our knowledge of the concepts, relationships, models, or theories embedded in the literature on “X”?*
- *How does this paper cause us to think about “X” in a way that would not normally be anticipated from extrapolations of existing work, thereby advancing future work in an important and useful way?*

Once you have reached an answer, you can structure the main body of the thesis or seminar paper with the following sections: (1) Introduction, (2) Literature Review, (3) Data Section, (4) Analysis, (5) Results and Discussion and (6) Conclusion. These six sections should be able to capture the following phrases (Patriotta, 2017):

- *This is what I am focusing on*
- *This is why it is relevant*
- *This is what is known/not known (and why it needs attention)*
- *This is my burning question*
- *This is how I aim to address the question (theoretically/empirically)*
- *This is what I did*
- *This is what I found*
- *This is what it means*
- *This is what I add*
- *This is why you should care*

2.2. Content requirements for each section

The introduction in Section 1 should be able to condense all the 10 phrases into 2-3 pages wherein it would highlight all the steps that will be laid out in Sections 2-6. The literature review on Section 2 should expound the phrase “This is what is known/not known (and why it needs attention).” The selection criterion for Section 2 is not about the completeness of the literature, but the benefit to your research question. The terms essential for understanding your work should be explained and narrowed down in such a way that it becomes clear how they are used in the work. Section 3 would then highlight the data and method that you are going to use. Here, expounding the phrase “This is how I aim to address the question (theoretically/empirically),” meaning, you should justify the

reason why you would like to answer your research question in a theoretical or empirical (or mixed-method) manner, and provide descriptions of the data you used (e.g., qualitative data for the theory building, and quantitative data for empirical testing). Section 4 focuses on what specific method you did (the phrase “this is what I did”) and continue on Section 5 providing the results (“this is what I found”) and discussion of the implications of these results (“this is what it means”). Further, you can include the contribution of your paper (“this is what I add”), linking it to your research question and the gap in the literature that you found in your review. Lastly, at the end of the main text, the most important results of the work should be condensed in the concluding chapter (Section 6) and provide further societal implications (“this is why you should care”).

3. Types of paper

Depending on the type of paper you write, there are different expectations as to what you should be able to do or be willing to learn for the thesis. There are, in principle, three main types of thesis: (1) a literature review, (2) an empirical analysis based on quantitative data, or (3) a case study based on one or a few exemplary cases. The following subsections will outline the expectations for each type.

3.1. Literature Review

A significant number of students find it interesting to conduct a literature review on various topics. As it is relatively easier to find sources online, the majority of the students think that a literature review is only about fitting pieces together. However, contrary to this belief, creating a literature review requires an integration of information as well as its analysis and interpretation. In this section, we borrow heavily from Cooper (1984) and Randolph (2009) to guide the students in some of the best practices in conducting a literature review.

3.1.1. Literature review selection criteria

Decide what questions the literature review will answer and determines explicit criteria to dictate the inclusion, or exclusion, of an article included in the review. The following shows how the goal of the review influence what kind of questions to ask.

- Integrate research outcomes: From the previous literature, what is the effect of intervention X on outcomes Y and Z?
- Critically analyze the research methods: What research methods have been used in the past to investigate phenomenon X and what are the methodological flaws of those methods?
- Identify central issues: What are the central theories that have been used to explain phenomenon X?
- “How does X lead to/affect Y?” and “Why X leads to Y”?

3.1.2. Sampling

Gather an exhaustive, semi-exhaustive, representative, or pivotal set of relevant articles. In this step, note that the type of data that will be extracted should be again determined by the focus and goal of the review. Remember to use only the data that fits the criteria that were determined in the previous step.

3.1.3. Extract and evaluate

Synthesize the information in the articles that met the inclusion criteria. In extracting data, students should document the system of extracting data from articles, types of data extracted, and the process used. This documentation of the procedure done in collecting the data should be at a level of detail where a second person could arrive at more or less the same results by following the recorded procedure.

3.1.4. Analyse and interpret the extracted data

Broadly speaking, students can do a quantitative literature review, qualitative literature review or mixed-method literature. The methods shown below are the most common methods in conducting a literature review.

- Quantitative Literature Review Methods: Narrative reviews or meta-analytic review
- Qualitative Literature Review Methods: Ogawa and Malen (1991) method, Phenomenological Method or Noblit and Hare (1988) method

3.1.5. Information weeding

You should determine which information to present and which information to be left out. In this step, you will need to justify why certain information is not relevant, for example, by establishing a set of criteria for the literature review (see Section 2.1).

The table below shows additional information that the students should consider in creating a literature review.

Table 1: Stages in Conducting a Literature Review

Stage Characteristics	Research Stage				
	Problem formation	Data collection	Data evaluation	Analysis and interpretation	Public presentation
Research Questions Asked	What evidence should be included in the review?	What procedures should be used to find relevant evidence?	What retrieved evidence should be included in the review?	What procedures should be used to make inferences about the literature as a whole?	What information should be included in the review report?
The primary function in Review	Constructing definitions that distinguish relevant from irrelevant studies.	Determining which sources of potentially relevant sources to examine.	Applying criteria to separate “valid” from “invalid” studies.	Synthesizing valid retrieved studies.	Applying editorial criteria to separate important from unimportant information
Procedural differences that create variation in review conclusion	1. Differences in included operational definitions. 2. Differences in operational detail.	Differences in the research contained in sources of information.	1. Differences in quality criteria. 2. Differences in the influence of non-quality criteria.	Differences in the rules of inference.	Differences in guidelines for editorial judgment.
Sources of potential invalidity	1. Narrow concepts might make review conclusions less definitive and robust. 2. Superficial operational detail might obscure interacting variables.	1. Accessed studies might be qualitatively different from the target population of studies. 2. People sampled in accessible studies might be different from the target population of people.	1. Nonequality factors might cause improper weighting of study formation. 2. Omissions in study reports might make conclusions unreliable.	1. Rules for distinguishing patterns from noise might be inappropriate. 2. Review-based evidence might be used to infer causality.	1. The omission of review procedures might make conclusions irreproducible. 2. The omission of review findings and study procedures might make conclusions obsolete.

Source: Cooper (1982)

3.2. Quantitative Data Analysis

You are expected to be able to do the following things when working with quantitative data.

3.2.1. Process of data analysis

The goal of your thesis is to provide a robust explanation for an assumed relationship. There are two common mistakes: (1) Discussion of trivial statistical issues: Avoid discussing relatively trivial statistical issues in too much detail. This section should not remind the reader of a textbook for introductory econometrics. (e.g. discussing homoskedasticity, heteroskedasticity, and how robust standard errors can correct heteroskedasticity in detail. Instead, in most cases, one sentence that states you are using robust standard errors to account for heteroskedasticity in your data suffices.) (2) Similarly, avoid being too technical. For example, you should be aware of the main assumptions of your estimation method (e.g. Gauss-Markov-Assumptions for ordinary least squares), but you should not discuss them in detail. Instead, focus on questions pertaining to your research question and data specifically. (e.g. is there a differential effect that may be important for the understanding of the data? If so, then running an additional analysis with an interaction term may be helpful to increase our understanding. Or, does the data have strong outliers that may drive the results? If so, then winsorizing the data or removing the outliers may be valuable.) Remember, the goal is to convince the reader that your findings are valid and that you thought thoroughly about your research question.

You should provide (1) useful and comprehensive descriptive statistics (mean, standard deviations, minimum, maximum, etc.), (2) a correlation table, (3) figures and graphs that help illustrate your data, (4) run t-tests, and (5) simple multivariate regression analysis. This usually requires the use of a statistical software package (preferably Stata) to analyze your data. Below you find some information about learning resources that help you utilize statistical software.

Depending on whether you gather your own data or whether you work with an established dataset, the expectations toward your analysis are different. If you work with an available dataset, the main focus of your thesis is the analysis of this data. Thus, your analysis should not only include the main effects that you want to analyse, but also possible moderating effects (e.g. through interactions, or split samples analysis), as well as some robustness checks to better understand your data.

If you gather your own data or have to spend a substantial amount of time to prepare the data for analysis, then your analysis may be simpler, but your thesis should still include some simple multivariate regression analysis. Keep in mind that it takes a considerable amount of time to gather data, so you should start your data gathering process as soon as possible.

3.2.2. Data Interpretation

You should also include an extended discussion after your main analysis. Here you want to elaborate and show why your main findings are valid, how they fit in with the literature, why you find consistent or maybe conflicting results with previous studies and if so, describe some reasons why you find conflicting results (e.g. differing samples, study designs, etc.). This entails asking yourself questions, such as (1) what are possible reservations and criticisms readers might have, and how can they be addressed, (2) what are potential limitations of my analysis (such as endogeneity, omitted variables, etc.) and how may these limitations be addressed (e.g. through better data, robustness checks, or different analysis techniques), (3) what tests would increase the robustness of the main finding, or increase the understanding of the main effects (e.g. interactions or split sample analysis), and (4) are there possible alternative explanations for the findings?

3.2.3. Suggestions for literature for quantitative analysis

For empirical data analysis (with Stata software), the following references may be helpful.

- Angrist, J. D., & Pischke, J. S. (2014). *Mastering'metrics: The path from cause to effect*. Princeton University Press.
- Hassler, U. (2009). *Statistik im Bachelor-Studium: Eine Einführung für Wirtschaftswissenschaftler*. Springer.
- Winker, P. (2007). *Empirische Wirtschaftsforschung und Ökonometrie*. Springer.
- Wooldridge, J. M. (2015). *Introductory econometrics: A modern approach*. Nelson Education.
- Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics using stata* (Vol. 2). College Station, TX: Stata press.
- STATA USER'S GUIDE: <https://www.stata.com/manuals/u.pdf>
- STATA Software – help function
- STATA YouTube channel: <https://www.youtube.com/user/statacorp>

3.3. Case Study Approach

Case studies are based on a few exemplary cases (max. 8 cases), possibly only one case, where you have good access to information. Getting access to valuable information may, however, be quite challenging. A good opportunity for this type of thesis could be an internship at a company. Alternatively, you may know several entrepreneurs that you are able to interview, or you may have access to other sources that provide interesting information about companies (e.g. through their social media). Below you find some information about learning resources for case study analysis and software tools that you may find helpful. Keep in mind that it takes a considerable amount of time to gather data, so you should start your information gathering process as soon as possible.

3.3.1. Case Study Design

Case study research consists of an intensive analysis of one (single) or more cases (multiple cases) by utilizing one or (ideally) more sources of evidence such as interviews, documents, and statistics. A case study design is ideal when: (a) the focus of the study is to answer “how” and “why” questions; (b) you cannot manipulate the behavior of those involved in the study; (c) you want to cover contextual conditions because you believe that they are relevant to the phenomenon under investigation; or (d) the boundaries are not clear between the phenomenon and context. It can be used to describe, explore, or explain a particular phenomenon. Its primary units of analysis are cases, i.e., phenomena occurring in a relatively bounded, real-life context. These can range from individuals, organizations, projects, products, sectors, cities, nations, policies, relationships, communities, strategies, networks, et cetera. The primary unit(s) of analysis can be conceptualized and analyzed either as a single entity (holistic case study design) or as embedded in another unit (embedded case study), such as an employee as part of a team or a business unit as part of the firm.

A case study may be based on a research question that is an extension of the existing literature or based on a typology that is derived from the literature. In this case, the main challenge (other than getting the information) will be to connect your case to the literature, which can be quite difficult and thus, should not be underestimated.

Alternatively, you may want to investigate a more exploratory question, where research in the literature is not yet well established. However, it is extremely difficult for a student to judge whether a particular research question has not yet been addressed and to identify a clear research gap for exploration. For this reason, if you have an idea for a case study that is more exploratory in nature you should consult your supervisor, as to whether the question you want to address

really is not yet established in management literature or what research streams may be relevant for the question you want to address.

Given that you have only a few months to conduct case study research, the expectations from your thesis are focused on the consistency of the research design rather than merely on the novelty of the findings. In particular, a well-conducted case study should maintain a logical link between the research question(s), theoretical framework, data collection, analysis, and findings. In this regard, it is mandatory for students to establish the quality of their case study research by using the standard quality criteria of validity and reliability.

3.3.2. Suggestions for the process

- Identify the type of research question(s) that you are going to investigate: is it a ‘how’ or a ‘why’ research question?
- Define the purpose of your case study research: Are you looking to describe, explore, explain, or compare cases? Do you seek to develop a new theory or to test a well-established theory?
- Identify your case(s) and how you are going to analyze them, i.e., as embedded, or holistic units?
- Choose the most informative case(s), i.e., case(s) that you have access to; for instance, if you have done an internship (Praktikum), you may consider studying the organization you have done your internship with.
- Start your data collection as soon as you have identified the case(s) that would like to investigate.
- Start your data analysis immediately after you have conducted your first interview or gathered your first round of documents.
- Use an interview protocol to conduct interviews.
- Develop a coding scheme to analyze interviews and/or documents as early as possible.
- Choose your data analysis strategy: is it going to be grounded theory, template analysis, or mixed-method analysis?
- Choose a Computer-Aided Qualitative Data Analysis Software (CAQDAS) such as NVIVO, MAXQDA or RQDA (free open source) to analyze your qualitative data.
- Use multiple sources of evidence as this increases data credibility and eliminates bias.
- Organize your data: create and maintain your case study database regularly.
- Keep notes and memos of the data collection and analysis process.
- Use a set of quality criteria (reliability, construct validity, external validity, or internal

validity) to ensure that your case study analysis produces reliable findings.

3.3.3. Suggestions for literature for case study approaches

General References:

- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, 14(4), 532-550.
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative inquiry*, 12(2), 219-245.
- Gray, D. E. (2019). *Doing Research in the Business World (Chapter 11: Designing Case Studies for Business)*. Los Angeles: Sage Publications.
- Mills, A. J., Durepos, G., & Wiebe, E. (Eds.). (2009). *Encyclopaedia of Case Study Research*. Los Angeles: Sage Publications.
- Stake, R. E. (1995). *The Art of Case Study Research*. London: Sage.
- Yin, R. K. (2017). *Case Study Research and Applications: Design and Methods*. Sage publications.

References for collecting primary and secondary data for Case Study Research:

- Interviews:
Gray, D. E. (2019). *Doing Research in the Business World (Chapter 15: Interviewing)*. Los Angeles: Sage Publications.
- Documents:
Gray, D. E. (2019). *Doing Research in the Business World (Chapter 19: Unobtrusive Measures)*. Los Angeles: Sage Publications.
- Questionnaires:
Gray, D. E. (2019). *Doing Research in the Business World (Chapter 14: Questionnaires)*. Los Angeles: Sage Publications.
- Surveys:
Gray, D. E. (2019). *Doing Research in the Business World (Chapter 10: Designing Descriptive and Analytical Surveys for Business)*. Los Angeles: Sage Publications

References for analysing primary and secondary data for case study research:

- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative sociology*, 13(1), 3-21.
- King, N. (2012). Doing template analysis. *Qualitative organizational research: Core methods and current challenges*, 426, 77-101.
- Byrne, D. (2002). *Interpreting Quantitative Data*. Los Angeles: Sage.

References for evaluating and assessing the quality of case study research:

- Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic Management Journal*, 29(13), 1465-1474.
- Yin, R. K. (2017). *Case Study Research and Applications: Design and Methods*. Sage publications.

4. Recommendations of Data and Literature Sources

4.1. Empirical Data

For students who are interested to do data work or to complement their results, these following links could be helpful in your research. Note that all the links are accessible to everyone but there are databases that may have additional requirements such as creating an account and/or using a Goethe University Frankfurt IP Addresses.

Table 2: Useful Database and links

Panel A. Industry and country-level data

Name	Link
DESTATIS	https://www.destatis.de/DE/Home/_inhalt.html
Eurostat	http://ec.europa.eu/eurostat
EU KLEMS	http://www.euklems.net/
GGDC	https://www.rug.nl/ggdc/
Historical Devt	https://www.rug.nl/ggdc/historicaldevelopment/
Korean Panel	http://www.welfarestate.re.kr/beluxe_aHXN48/
NBER	http://www.nber.org/data/
OECD	http://stats.oecd.org/
Penn World	https://www.rug.nl/ggdc/productivity/
STAN	http://stats.oecd.org/
World IO	https://www.rug.nl/ggdc/valuechain/

Panel B. Patent Data

Name	Link
EPR	https://register.epo.org/regviewer
ESPACENET	https://worldwide.espacenet.com/
IIP	https://www.iip.or.jp/e/e_patentdb/
PATENTSCORE	http://www.wipo.int/patentscope/en/
PATSTAT ⁷	https://www.epo.org/searching-for-patents/business/patstat.html#tab1

Panel C. Entrepreneurship survey

Name	Link
GEM	http://www.gemconsortium.org/data
MobyGames	http://www.mobygames.com/
PSED	http://www.psed.isr.umich.edu/psed/home

Panel D. Databank at the House of Finance

Name	Link
SAFE ⁸	http://safe-frankfurt.de/datacenter/_databases/

Panel E. Firm-Level Data

Name	Link
CrossAsia ⁹	https://crossasia.org/
DSM	https://deutscherstartupmonitor.de/
GMOP ¹⁰	https://fdz.iab.de/en/FDZ_Establishment_Data/GMOP.aspx
IAB ¹¹	https://fdz.iab.de/en/FDZ_Establishment_Data/IAB_Establishment_Panel.aspx
KFWGM	https://www.kfw.de/KfW-Konzern/KfW-Research/KfW-Gründungsmonitor.html
Mannheim IP	https://www.zew.de/en/publikationen/zew-gutachten-und-forschungsberichte/forschungsberichte/innovationen/innovationserhebung/

⁷ Accessible for 2 months after registration on their website.

⁸ Accessible only with Goethe University IP address or when using a VPN.

⁹ Goethe university students can apply for the access by filling out the registration application site from the website. This website includes various database related to East Asian countries such as China, Japan and South Korea. The database coverage includes: Statistical yearbooks, archival materials, newspaper articles, Chinese academic journals, Nikkei NEEDS Financial QUEST. Access to the database should be through a Sinology/Japanology or other Asian studies departments.

¹⁰ GMOP (German Management and Organizational Practices) Survey: This data set relates to the years 2008 and 2013 and contains information on 1927 establishments. Students can apply for on-site data access

¹¹ IAB is an annual representative firm survey. It has been conducted by the IAB since 1993 in West Germany and since 1996 for East Germany. This data is also available linked with individual administrative data such as LIAB (Linked Employer/Employee Data). Data is available via on-site use application or remote data access application

Panel F. Literature Review

Name	Link
Web of Science	https://clarivate.com/webofsciencelgroup/solutions/web-of-science-core-collection/

For other datasets that are not listed or mentioned here, you can use **Google Public Data** (<https://www.google.com/publicdata/directory>) to search for all publicly available data for any country across different periods. To search for a more specific dataset or for datasets that are not publicly available, you can use **the Google Data Search** engine (<https://toolbox.google.com/datasetsearch>) to look for a dataset.

4.2. Scientific Journals

To write an effective and credible scientific paper, you must only use good journals in your references. Good journals mean that they are peer-reviewed and have scholarly articles that publish frontier research in their respective fields. However, for students who do not have a lot of experience writing scientific papers, it might be difficult to discern good journals from the bad. To address this issue, you can use the ABS Academic Journal Guide. The guide compiles and ranks journals according to their quality and contribution. Students can use articles from any journal that has a grade of 3 and above from ABS Academic Journal Guide. Please see the link below to access the journal guide.

Table 3: Link to Journal Guides and Rankings

Name	Link
ABS	https://www.wiwi.uni-frankfurt.de/fileadmin/user_upload/dateien_abteilungen/abt_mgt/Dateien/Professur_Storz/AJGABS2021list_selected_03-2022.pdf

5. Evaluation criteria

The following list provides an overview of features that will be considered within the grading process and have a significant impact on the final grade. Yet, this list does not claim to be exhaustive.

Category	Evaluation
Content	Are the facts correctly reproduced? Is the content well structured? Is the question formulated clearly?
Research Question	Is the research question clear? Why is it interesting? Which research gap would be addressed?
Structure and layout	Is the work clearly structured and stringent in its structure? Are there references between the individual points? Is the argumentation clear?
Creativity	Is the own/original question pursued? Is the content original?
Style	Is the choice of words suitable? Are the sentences understandable? Is the interest of the reader aroused? Is the technical language used?
Literature	Is the important (state of the art) literature being used? Are Internet sources chosen carefully and used only in appropriate places? <i>For Japanese Studies students: Is enough original-language literature been used?</i>
Coherence	Is the paper coherent in a way that it establishes a sound link between research question(s), literature review, framework/hypotheses, method, analysis, and findings
Grammar and Orthography	Is the sentence structure grammatically correct? Are spelling and punctuation correct?
Citation and list of references	Are indirect and direct quotations correct? Is the list of references complete and consistent?
Tables and Figures	Is the number of tables and figures appropriate? Are they presented in a way that is understandable for the reader and are they correctly overwritten? Are they adequately embedded in the running text